

REMARKS

This Amendment is submitted in response to the Office Action mailed January 25, 2005 in the application. Claims 1-20 are pending. Claims 9-11 were withdrawn in a previously filed paper. Claims 4 and 15 have been canceled. Claims 1, 2, 5, 12, 13, 14, and 16-20 have been amended. New Claims 21-28 have been added. Accordingly, claims 1-3, 5-8, 12-14 and 16-28 are presented for consideration.

The Examiner has rejected applicants' claims 1-4, 8, 12-15, 19 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Grage et al. (U.S. Patent No. 5,005,083) in view of Lassiter (U.S. Patent 6,624,846). The Examiner has reject applicants' claims 5 and 16 as being unpatentable over Grage et al. in view of Lassiter and further in view of Driscoll, Jr. et al. (U.S. Patent 6,593,969). The Examiner has reject applicants' claims 6 and 17 as being unpatentable over Grage et al. in view of Lassiter. The Examiner has reject applicants' claims 7 and 18 as being unpatentable over Grage et al. in view of Lassiter, and further in view of Busko et al. (U.S. Patent 5,903,319). With respect to applicants' claims, as amended, the Examiner's rejections are respectfully traversed.

Applicants' independent claims 1, 12 and 20 have been amended to more clearly define the present invention. Independent claim 1 is directed to a camera control system comprising first image pickup device which picks up an image of an object through a wide-angle lens having distortion, to output frame images which are generated within a predetermined fixed area consecutively in a first interval; image processing device which performs projective transformation processing to correct distortion of the frame images outputted from said first image pickup device; second image pickup device having no distortion, which outputs frame images which are generated consecutively in a second interval

which is shorter than the first interval; display device which displays the frame images processed by said image processing device, and which superimposes and displays, on the displayed frame images, a rectangular frame indicative of an image-pickup area of said second image pickup device, and displays the frame images from said second image pickup device together with the processed frame images and the rectangular frame; designating device which designates a desired rectangular area within the frame images displayed by said display device; control device which controls at least one of panning, tilting and zooming of said second image pickup device in such a way as to pick up an image corresponding to the rectangular area designated by said designating device, and; wherein, a frame image of the first image pickup device to be displayed by said display device is generated independently of the first interval, in response that said control device completes the control of said second image pickup device in accordance with the designation by said designating device. Claims 12 and 20 relate to a related camera control method and a storage medium which stores a program.

Claim 1, as amended, specifically calls for a first image pickup device which generates and outputs frame images within a predetermined fixed area consecutively in a first interval, and a second image pickup device which outputs and generates frame images consecutively in a second interval which is shorter than the first interval. Referring to Figures 1 and 3 of the drawings of the present application, the first image pickup device is shown as wide-angle camera portion 101 in Fig. 1 and the second image pickup device is shown as zoom camera portion 110 also in Fig. 1. Importantly, the frame images outputted by the first image pickup device, as recited in the claims, correspond to the frames in 112 shown in Fig. 3, and the frame images outputted by the second image pickup device correspond to the frames in 116 in

Fig. 3. The recited “first interval” pertains to the wide-angle camera image request signal 115(c) shown in Fig. 3 and discussed in the specification on page 16, lines 10-12 and on page 19, lines 12-16. The recited “second interval” is discussed in the specification on page 16, line 6-9 and pertains to an interval in 116 in Fig. 3, the second interval being shorter than the first interval. Moreover, applicants’ last recited feature in claim 1 is quite pertinent: “a frame image of the first image pickup device to be displayed by said display device is generated independently of the first interval, in response that said control device completes the control of said second image pickup device in accordance with the designation by said designating device.” Such feature is discussed in the specification on page 18, lines 6-15 and shown in Fig. 3 as the relationship between command C13 in 118 (also see Fig. 1) and B21 in 112. Applicants’ independent claims 12 and 20 similarly recite these features.

In the office action, the Examiner relies upon Grage et al. for disclosing most of the features recited in applicants’ independent claims. However, it is respectfully submitted that Grage et al. does not disclose the above-discussed features recited in applicants’ claims, as further discussed below.

Grage et al. is directed to an infrared imaging system that is composed of a dual channel camera having a dual field of view. The dual channel camera is mounted on a platform that is pivotable in azimuth and elevation. The system has two optical channels: the first being a wide field of view channel (WFOV) and a second being a narrow field of view channel (NFOV). Significantly, the dual channel camera has a common scan system for scanning the scene.

First, Grage et al. does not disclose applicants’ claimed feature of the second interval being shorter than the first interval, where the frame images of the second image pickup

device are generated in the second interval and the frame images of the first image pickup device are generated in the first interval. Rather, in Grage et al., the intervals are the same.

Second, Grage et al. does not disclose applicants' claimed feature of generating a frame image to be displayed independently of the first interval by the first image pickup device, in response to completion of control of the second image pickup device. Rather, Grage et al. describes a tracking operation in col. 6, lines 7-48, wherein azimuth and elevation of the NFOV and synchronization of the NFOV are controlled in accordance with the user operations. Grage et al. is silent with respect to particularly when images are generated by the WFOV and when synchronization of the WFOV is carried out. Still further, Grage et al. discusses that image generation timing of the scan system (SC) is synchronized by scan synchronization device SYD1, and there is no discussion with regard to synchronization with the control command.

Third, Grage et al. sets forth that the WFOV and NFOV are mounted on one platform and, thus, the fields of change both change and are related as the platform moves. The present invention is directed to providing two a wide-angle camera and a zoom camera that can move separate from one another. As described, applicants' wide-angle camera may be fixed while controlling "panning, tilting and zooming" of applicants' zoom camera. In Grage et al., movement of one camera portion causes the same physical movement of the second camera portion.

From the foregoing, it is seen that Grage et al. does not disclose various features of applicants' independent claims 1, 12 and 20. These features likewise are not disclosed in the Lassiter patent, which the Examiner relied upon solely for showing performing distortion correction when using a wide angle lens. It is also noted that Lassiter is silent with respect to

the particular timing or intervals in which frame images are generated or output in the case two cameras are utilized. Thus, the claims are patentably distinct and unobvious over the combination of Grage et al. and Lassiter.

With respect to Driscoll, Jr. et al. and Busko et al., references cited by the Examiner with regard to various dependent claims, it is submitted that these references likewise do not disclose the above-mentioned features recited in applicants' independent claims. Thus, the claims are patentably distinct and unobvious over Grage et al. and Lassiter, in combination with either Driscoll, Jr. et al. or Busko et al.

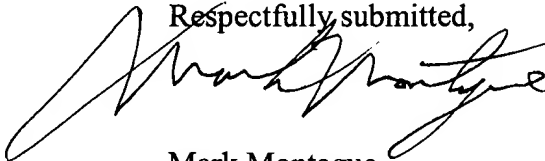
In view of the above, it is submitted that applicants' claims, as amended, patentably distinguish over the cited art of record. It is therefore requested that the rejection of claims 1-3, 5-8, 12-14 and 16-20 be withdrawn.

New claims 21-28 are presented. Independent claims 21 and 25 recite a camera control system and method that are substantially similar to the system and method respectively recited in claims 1 and 12. These claims are presented to better clarify the language, such as use of "first frame images" generated by the first image pickup device. New dependent claims 22 and 26 correspond respectively to pending claims 2 and 13, new dependent claims 23 and 27 correspond respectively to pending claims 3 and 14, and new dependent claims 24 and 28 correspond respectively to pending claims 5 and 16. For those reasons previously discussed with respect to independent claims 1, 12 and 20, it is submitted that new claims 21-28 are patentably distinct and unobvious over the prior art of record. The allowance of claims 21-28 is solicited.

Reconsideration of the claims is respectfully requested. If the Examiner believes an interview would expedite consideration of this Amendment or of the application, a request is made that the Examiner telephone applicants' counsel at (212) 682-9640.

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Cowan, Liebowitz & Latman, P.C.
1133 Avenue of the Americas
New York, NY 10036-6799
(212) 792-9200

Respectfully submitted,


Mark Montague
Reg. No. 36,612
Attorney for Applicant